

Date: Mon, 3 Jan 94 11:33:38 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1538  
To: Info-Hams

Info-Hams Digest                      Mon, 3 Jan 94                      Volume 93 : Issue 1538

Today's Topics:

"Renewal" batteries -- a note  
atomic clocks in TV networks  
cw waivers  
FFTMORSE  
MFJ vertical  
QSLROUTE ftp address?  
Ramsey kits not too good?  
Strange Antenna (2 msgs)  
TOYOTAS AND MOBILE RIGS

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Mon, 03 Jan 1994 09:19:38 -0500  
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa  
Subject: "Renewal" batteries -- a note  
To: info-hams@ucsd.edu

In article <1993Dec25.211737.4849@gsm001.mendelson.com>,  
gsmlrn@gsm001.mendelson.com (Geoffrey S. Mendelson) wrote:  
> As for the reverse charging, try placing a diode in series with the 4.5 volt  
> pack.

Geoff-

The reverse-charging problem is caused by normal forward current, once one  
or more cells have reached zero voltage. Therefore, the series-diode

method won't work. You must determine that the total battery voltage has dropped by the amount of one cell's voltage, and stop draining the battery when that occurs. (On the other hand, a parallel schotky diode might help?)

A problem with the idea of replacing NiCds with the new alkalines, is that it is necessary to recharge the alkalines relatively early, in order to realize the long life they are claimed to have. By not recharging until they reach zero volts, the number of times they can be recharged is reduced.

This is opposite of NiCds, which maintain a longer charge-life, when you don't recharge until they are nearly exhausted.

73, Fred, K4DII

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Date: Mon, 3 Jan 1994 15:55:41 GMT  
From: netcomsv!netcom.com!wa2ise@decwrl.dec.com  
Subject: atomic clocks in TV networks  
To: info-hams@ucsd.edu

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Date: 3 Jan 94 13:51:35 GMT  
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu  
Subject: cw waivers  
To: info-hams@ucsd.edu

Note: followups directed to policy.

In article <gPcJFc1w165w@info-gw.mese.com> aragorn@info-gw.mese.com (Chris Craig) writes:

>> Actually since W is not needed and it not any kind fo a reliable indicator of  
>> technical or operating comptetance I say hurray. CW as a requirement should b  
>> eliminated. It is an outmoded method of communication and is wrothwhile only  
>> fun test of a particular skill. TI has no relavanve whatsoever to competence  
>> any other phase of the hobby. I say that it is jsut taking up too much of the  
>> bands. MUCH more space should be allocated to the efficient digital modes suc  
>> pactor and more communication could be carried out. Even hf packet would be m  
>> better if all were not forced to operate on a very narrow range of frequencie  
>> Come out of the dark ages and into the light.

>>  
>> gilbaronw0mn@delphi.com

>

>So, what are you suggesting?? That there be no test at all??? If so, just  
>go to CB and use it. 11 meters is HF after all! I'm not about to tell you  
>that allocating more space to efficient digital methods is a bad  
>suggestion, actually that's the only constructive piece I saw in your  
>message, but doing away with testing would destroy amateur radio once and  
>for all.

> Chris Craig  
> KD4HDE

That's not what I read into his statement at all. (Though it would be nice if it were formatted correctly and spell checked :-)) He's saying we should eliminate the irrelevant Morse test. I won't go into whether Morse is useful/useless here, my position is well known, but the \*test\* is useless since Morse users must know Morse to use it, by definition. So if access is granted to spectrum where Morse is permitted, the operator is going to have to gain competence in Morse to use it. Whether there's a government test or not is irrelevant since the relevant test is on the air operation.

Simply put, those who don't know Morse will do no Morse until/unless they learn Morse.

Obviously, the Morse test is not the \*only\* test required of an amateur. So he's not advocating eliminating testing in general. (At least that's my interpretation of what he's saying.) Now you may or may not agree with me on the following, but I think the current written exams are totally inadequate to serve their intended purpose. That purpose is to make sure the applicant knows enough to avoid injury to himself or others, knows enough to detect, and possibly correct, transmitter faults that could cause interference to other services (opening the envelope and finding the pink ticket isn't adequate for this purpose), and knows enough to operate within the other amateur regulations. That's the sole legitimate function of government testing. Since the Morse test doesn't fall under that category, it's not a legitimate interest of government.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----  
Date: 3 Jan 94 11:26:29  
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net  
Subject: FFTMORSE  
To: info-hams@ucsd.edu

It does NOT work as it comes with SB, SB PRO, or SB16. It needed a complete rewrite of that section. I am communicating these to the author.

Bob

--

Robert W. McGwier | n4hy@ccr-p.ida.org Interests: ham radio,  
Center for Communications Research | scouts, astronomy, golf (o yea, & math!)  
Princeton, N.J. 08520 | ASM Troop 5700, ACM Pack 53 Hightstown  
(609)-279-6240(v) (609)-924-3061(f) | I used to be a Buffalo . . . NE III-120

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Date: 3 Jan 94 15:00:57 GMT  
From: ogicse!emory!europa.eng.gtefsd.com!howland.reston.ans.net!  
vixen.cso.uiuc.edu!ux2.cso.uiuc.edu!ignacy@network.ucsd.edu  
Subject: MFJ vertical  
To: info-hams@ucsd.edu

iDoes anybody have experiences with MFJ 10 ft 2m-40m vertical? In particular, what is its bandwidth on 40m and how efficient is it? I know it can't be too efficient but vertical design and lack of radials can somewhat compensate for reduced size. I just don't know how much.  
Ignacy Misztal, N09E

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Date: 3 Jan 1994 13:37:05 GMT  
From: Germany.EU.net!news.dfn.de!server2.rz.uni-leipzig.de!news.uni-jena.de!  
news.tu-ilmenau.de!prakinf2.PrakInf.TU-Ilmenau.DE!systemtechnik.tu-ilmenau.de!  
tom@uunet.uu.net  
Subject: QSLROUTE ftp address?  
To: info-hams@ucsd.edu

In article <19931230190929CSMSCST@MVS.OAC.UCLA.EDU>, CSMSCST@MVS.OAC.UCLA.EDU (Chris Thomas) writes:  
|> Could someone tell me the name or IP address of the German  
|> site from which it is possible to FTP "QSLROUTE" updates.  
|> Thanks.  
|> -- 73 de Chris Thomas, AA6SQ (ex-WA6HTJ) (CSMSCST@MVS.OAC.UCLA.EDU)  
up to June 1993 the service is on ftp.tu-ilmenau.de path pub/msdos/ham/qsrlroutes  
Since then this service is not supported by the editors.  
Please read the following README file from this path.

----- begin README -----

This directory contains the supplements of "QSL Routes - World Annual of QSL

Managers."

1993 ff.

It is edited by Theuberger Verlag, Box 73, D-10122 Berlin, Germany.

-----  
Remarks: (18.08.93)

This update services is not longer supported than to June 93 via ftp.  
Owners of the Book get the updates by mail.

If you want to get a free of charge test of "QSL-ROUTES"  
2nd edition 1992 + supplements 1992 (or 1993 edition if  
92 is no longer available)  
you can write a letter to:

Theuberger Verlag GmbH  
P.O.Box 73  
D-10122 Berlin  
Germany

You should include 2 US\$ or 3 IRC or 3 DM (stamps) at least  
for surface mail and an address label.

----- end     README -----

Remarks at the end:

I have checked the ftp-logs and watched that a lot of hams  
downloaded that files. But never one emailed me...  
I would provide this service for you in the future but...  
...the editor told me that he doesnt want to support that  
service by ftp up to the time I will tell him the email addresses  
of a serious number of peoples (hams & netters) who are owner of a book  
"QSL-ROUTES" and those hams express their interest in getting  
the updates by email, maillist, ftp?....  
So: if you are interested in this service email me or mail  
to the editor for a free test.

--

Thomas Planke DL5ATP  
Technical University of Ilmenau

Planke@Systemtechnik.TU-Ilmenau.DE  
Phone: +49 3677/69-1465

-----  
Date: 3 Jan 94 16:13:37 GMT

From: ogicse!uwm.edu!cs.utexas.edu!math.ohio-state.edu!news.acns.nwu.edu!  
casbah.acns.nwu.edu!lapin@network.ucsd.edu

Subject: Ramsey kits not too good?

To: info-hams@ucsd.edu

In article <757263689snx@skyld.tele.com>,  
Jeffrey D. Angus <jangus@skyld.tele.com> wrote:  
> Gee, it never fails to amaze me.

Attitudes like your's never fail to amaze me, Jeff.  
If we continue to accept garbage, you can be sure that garbage is what we  
will get, at any price.

> "Why doesn't this kit I paid \$15.00 for not perform like the  
> \$400.00 thing I should have bought instead?"

Check the prices for Ramsey kits. Not too many out there for \$15. In  
fact, many of the kits cost little less than an assembled radio.

> Ask a repair shop to show you the innards of a hand held and  
> then see if there is only 2 ics and a dozen parts in there.  
>  
> Look inside a KAM or PK-232 and count the parts.  
>  
> Even the commercially assembled BAYCOM modems by TigerTronics  
> at least have quality parts, pc boards and were soldered properly.

Have you ever used a TigerTronics packet modem? Mine did not work with my  
computer's original COM port because it was driving an RS232 port with TTL  
levels. It was also terribly sensitive to rfi from the computer and  
eventually glitched and burned out the RS232 driver chip on my COM port.  
The packet modem that I homebrewed far outperforms my old TigerTronics.

> Ramsey Kits (and others) are for the entertainment value of playing  
> with something on the bench. They are NOT a substitute/alternative to  
> paying for a quality item that works properly.

This is an attitude that will turn hams into appliance operators PDQ.  
Building kits is not supposed to be just entertainment but should also  
teach some electronics. There is no reason why they should work poorly.

> Yeah, I can hear the old farts now, "What about HeathKit?" I bought them  
> and built them myself. They worked. Some of them worked pretty good. None  
> of them was a direct replacement for a expensive commercial product.

First of all, Jeff, you are older than I am. Yet, most of the contacts  
that I used for DXCC were with Heathkits. Sure, they were no Collins  
S-line but they outperformed other ham gear that cost twice as much. The  
Heathkits, in general, were fine radios and had the added benefit of  
teaching some electronics, too.

> If you're buying a Ramsey kit to play with, fine. Beats hacking around

> inside an expensive radio. If you're buying a kit to substitute for an  
> expensive radio, you get what you pay for.

No one is asking for kits like Ramsey's to be the top of the line.  
However, it is not too much to expect that the design be viable and the  
proper parts be there. Stories that I have heard include basic design  
flaws, missing parts, and lousy customer service.

One of the raisons d'etre of ham radio is to help train technically  
competent people. Attitudes like this and kits like Ramsey's, that  
discourage potential kit builders, are contrary to this. How can you argue  
that ham radio should exist as you keep chipping away at its basic  
premises?

> Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NA	"It is difficult to imagine our
>Internet: jangus@skyld.tele.com	universe run by a single omni-
> US Mail: PO Box 4425 Carson, CA 90749	potent god. I see it more as a
> Phone: 1 (310) 324-6080	badly run corporation."

Greg Lapin KD9AZ  
glapin@nwu.edu

-----  
Date: 3 Jan 1994 15:58:14 GMT  
From: nothing.ucsd.edu!brian@network.ucsd.edu  
Subject: Strange Antenna  
To: info-hams@ucsd.edu

It's a cell-phone antenna. Why does it look like that? Well, it  
doesn't get snagged in the car wash brush quite so easily, and it  
doesn't get ripped off by the garage door quite so easily, and it  
looks space age and is less efficient.

- Brian

-----  
Date: Mon, 3 Jan 1994 17:50:27 +0000  
From: pipex!demon!guitar.demon.co.uk!marcus@uunet.uu.net  
Subject: Strange Antenna  
To: info-hams@ucsd.edu

In article <2g83sh\$8p2@agate.berkeley.edu>  
ep208@garnet.berkeley.edu "Charles Woodson" writes:

> A few minutes ago I observed a Mercedes with what appeared to me to  
> be a strange antenna on it. The antenna was just above the rear  
> window, in a location where cellular phone antennas are often found.

> The antenna looked like a loop about 3 cm in diameter, and there was  
> a second loop the same size at 90 degrees to the first one.

Yes, it definitely is a cellular aerial. I have found them in the Maplin Electronics catalogue (UK). Height 40mm, freq range 800-1000MHz, so it is a broadband quarter wave antenna.

Also, according to this catalogue, the longer aerials (9-10") with the funny coil at the bottom provide an extra 4dB gain over the quarter wave ones.

--

```
|-----|  
| Marcus Bainbridge      | If I had a dollar every time I changed my .sig, |  
| marcus@guitar.demon.co.uk | I wouldn't have to pay the commission charge... |  
|-----|
```

-----  
Date: 3 Jan 94 14:24:41 GMT  
From: ogicse!uwm.edu!mixcom.com!kevin.jessup@network.ucsd.edu  
Subject: TOYOTAS AND MOBILE RIGS  
To: info-hams@ucsd.edu

I wrote to Toyota Customer Service in California and they sent me a "technical application note" (that's what the local dealer called it) that was specifically written for radio amateurs.

It was a tiny one-page document with very little of anything technical. Mostly a politically-correct disclaimer stating that Toyota does not want to ignore the importance of the amateur radio community. They then go on to say (in effect): tough shit boys, your on your own! They state that all warranties are basically void if you use anything with more power than a CB and that if you DO choose to install an amateur radio, it should be done by an authorized Toyota service facility!! Like they know anything about it! There were no comments as to the warranties then being good if Toyota installed the rig. Big surprise. ;-)

They did give some obvious (to radio amateurs) advice...

Keep all feed lines at least 10 inches away from any automotive wiring.

If you must cross over automotive wiring, do so at a right-angle.

Mount the antenna at the rear of the car or on the roof.

Run the radios 12VDC supply cable directly to the battery terminals. (Fuse the cable at the battery terminals.) Do NOT use any of the existing electrical system.



I own a 1991 Toyota Tercel. The Engine Control Unit (ECU) is directly behind the AM/FM Radio/Cassette behind the center console. So much for mounting the radio up front! :-( The best bet is to get a radio with a remote head and mount the main unit in the trunk and the antenna using a mag-mount or trunk-lip mount.

Note: I got the same impression regarding Honda and Ford/Mazda when I enquired with the service manager. They did not know of any available "application notes".

Regardless of the make of the car, I think if you keep all the electronics in the rear of the car, you should be OK.

One final anecdote..

A fellow radio amateur has a late-model Ford pick-up. He has a Yaesu FT5200 (with the remote head) mounted in the rear of the truck (he has a cap on the back). The antenna is on the roof above the cab. He says that at high-way speeds, he notices that the truck loses speed and runs very rough when he transmits at 50 Watts!

```
--
/`- _      kevin.jessup@mixcom.com |
{      }/ Marquette Electronics, Inc |   I suport publick skools! ;-)
\      / Milwaukee, Wisconsin, USA |
|__*| N9SQB, ARRL, Amateur Radio |
```

-----

Date: (null)  
From: (null)  
Rajiv  
aa9ch  
r-dewan@nwu.edu

-----

Date: (null)  
From: (null)  
Better use WWV.

-----

Date: Mon, 3 Jan 94 16:11:52 GMT  
From: mnemosyne.cs.du.edu!nyx10!jmaynard@uunet.uu.net  
To: info-hams@ucsd.edu

References <2g83sh\$8p2@agate.berkeley.edu>,  
<1994Jan03.050829.9814@uhura.neoucom.edu>, <2g9famINNSnk@network.ucsd.edu>.cs.d  
Subject : Re: Strange Antenna

In article <2g9famINNSnk@network.ucsd.edu>,  
Brian Kantor <brian@nothing.ucsd.edu> wrote:  
>It's a cell-phone antenna. Why does it look like that? Well, it  
>doesn't get snagged in the car wash brush quite so easily, and it  
>doesn't get ripped off by the garage door quite so easily, and it  
>looks space age and is less efficient.

We're using those on our ambulances for both the cellphone and the 800 MHz  
trunk radio; in addition to the pluses Brian mentions, it doesn't get caught  
in overhanging tree branches and pulled off of the roof.

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can  
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.  
"A good flame is fuel to warm the soul." -- Karl Denninger

-----  
Date: 3 Jan 1994 16:33:06 GMT  
From: swrinde!sdd.hp.com!col.hp.com!srngenprp!news.dtc.hp.com!hpscit.sc.hp.com!  
rkarlqu@network.ucsd.edu  
To: info-hams@ucsd.edu

References <2g7p56\$9s9@crl2.crl.com>, <1994Jan2.212541.3319@cmkrnl>,  
<2g9gdu\$7ed@crl2.crl.com>  
Subject : Re: why 29.94 fps?

Jamie Hanrahan, Kernel Mode Systems, San Diego CA writes:

> rticle for a frequency standard derived from a color tv. Soon afterward a  
> letter appeared in the letter column, written by an engineer at  
> one of the better-equipped stations in L.A. He stated that even network-  
> supplied programs taken from a live feed usually go through a time-base  
> corrector at the local station, and that this breaks the "chain of  
> traceability" back to the network's precision frequency standard.  
>

Correct. TV stations are not locked to atomic time.

Rajiv AA9CH writes:

> From what I remember, a Rubidium clock has better short term accuracy than  
> a Cesium clock. The Cesium one is more accurate in the long term. So a  
> Rubidium clock that is compared with a cesium one, say using phase

> comparison with wwvb, is as accurate as these clocks get - about 1  
> part in  $10^{12}$ .

A really \*good\* Rubidium clock like the HP 5065 \*does\* have better short term stability (1 to 100 seconds averaging time) than even the best Cesium standard (the HP5071). However, it will drift about a part in  $10^{11}$  per month. On the other hand, low cost "mini" Rubidium standards do not have such great short term stability and they may drift a part in  $10^{10}$  or more per month. The accuracy of a Rubidium depends on when was the last time it was calibrated against a Cesium standard or GPS.

People who want even better short term stability (like JPL) use a Hydrogen maser locked to a Cesium. H Masers have 100's of times better short term stability than the best Rubidium, but they have long term drift due to the teflon container aging.

By the way, there is no requirement for the colorburst frequency to have extremely high absolute accuracy. It is merely necessary for it to have exactly the right \*ratio\* to the sound carrier to avoid interference. The fact that they couldn't move the frequency of the sound carrier (because of the backward compatibility requirement) is why the field rate had to be lowered by .1%. (The color burst also must have a certain ratio to the field rate, as was previously stated).

The network rubidium clocks never had anything to do with this problem. They were used to allow switching between feeds without a \*phase\* jump. They could have run the whole network 1PPM high, for example, without a problem, as long as the whole network was the same.

Rick Karlquist N6RK  
rkarlqu@scd.hp.com

-----  
Date: 3 Jan 1994 08:17:02 -0800  
From: gatekeeper.us.oracle.com!barrnet.net!nntp.crl.com!crl2.crl.com!not-for-mail@uunet.uu.net  
To: info-hams@ucsd.edu

References <2g7eua\$ep1@reznor.larc.nasa.gov>, <2g7p56\$9s9@crl2.crl.com>,  
<1994Jan2.212541.3319@cmkrnl>  
Subject : Re: why 29.94 fps?

Jamie Hanrahan, Kernel Mode Systems (jeh@cmkrnl.com) wrote:  
: In article <2g7p56\$9s9@crl2.crl.com>, lreeves@crl.com (Les Reeves) writes:  
: > The colorburst frequency is not only cast in stone-it is extremely accurate.  
: > It is more accurate as a frequency reference than WWV. This is provided  
: > that you are tuned to a network-supplied program.

: Is this still true?

: I have no direct knowledge, but... many years ago (mid-70's if I remember  
: right) one of the hobby electronics mags (I think it was Radio-Electronics) had  
: an article for a frequency standard derived from a color tv. Soon afterward a  
: letter appeared in the letter column (where else :-), written by an engineer at  
: one of the better-equipped stations in L.A. He stated that even network-  
: supplied programs taken from a live feed usually go through a time-base  
: corrector at the local station, and that this breaks the "chain of  
: traceability" back to the network's precision frequency standard.

: (of course, anything that the local taped from a satellite feed for broadcast  
: later is completely divorced from any standards at the network.)

: Also, at that time it was stated that the networks used rubidium-clock  
: frequency standards, which are secondary standards: They're awfully good but  
: they still have to be calibrated against something better. NIST (the folks who  
: run WWV) uses cesium-beam clocks, which are primary standards, needing no  
: calibration for frequency. Have the networks since upgraded to cesium-beam  
: clocks? And, given that the local stations probably haven't, does it matter  
: anyway? Even if they have, they're still "only" as good as NIST's clocks, so  
: why should one over-the-air signal be better than another? (propagation  
: changes on shortwave, maybe?)

I received E-Mail from [larson@net.com](mailto:larson@net.com) (reply bounced) stating pretty much  
the same thing you stated above. He mentioned things like TBC/frame synch.  
processors in the loop \*and\* the effect of doppler from satellite.  
If this is the case, I doubt it matters whether we are talking rubidium or  
cesium-beam; the color burst on a network program would be traceable to  
an inexpensive quartz reference at the local TV station.

The article in Radio Electronics appeared 3-5 years ago, if I remember  
correctly.

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Date: 3 Jan 1994 15:16:47 GMT  
From: [galaxy.ucr.edu](mailto:galaxy.ucr.edu)![library.ucla.edu](mailto:library.ucla.edu)![agate.howland.reston.ans.net](mailto:agate.howland.reston.ans.net)![math.ohio-state.edu](mailto:math.ohio-state.edu)![news.acns.nwu.edu](mailto:news.acns.nwu.edu)![casbah.acns.nwu.edu](mailto:casbah.acns.nwu.edu)![rdewan@network.ucsd.edu](mailto:rdewan@network.ucsd.edu)  
To: [info-hams@ucsd.edu](mailto:info-hams@ucsd.edu)

References <[2g7eua\\$ep1@reznor.larc.nasa.gov](mailto:2g7eua$ep1@reznor.larc.nasa.gov)>, <[2g7p56\\$9s9@crl2.crl.com](mailto:2g7p56$9s9@crl2.crl.com)>,  
<[1994Jan2.212541.3319@cmkrnl.edu](mailto:1994Jan2.212541.3319@cmkrnl.edu)>  
Subject : Re: why 29.94 fps?

In a discussion of use of color burst signal as a timebase, Jamie Hanrahan  
<[jeh@cmkrnl.com](mailto:jeh@cmkrnl.com)> wrote:

>  
>Also, at that time it was stated that the networks used rubidium-clock  
>frequency standards, which are secondary standards: They're awfully good but  
>they still have to be calibrated against something better. NIST (the folks who  
>run WWV) uses cesium-beam clocks, which are primary standards, needing no  
>calibration for frequency. Have the networks since upgraded to cesium-beam  
>clocks? And, given that the local stations probably haven't, does it matter  
>anyway? Even if they have, they're still "only" as good as NIST's clocks, so  
>why should one over-the-air signal be better than another? (propagation  
>changes on shortwave, maybe?)

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End of Info-Hams Digest V93 #1538

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